AMENDMENTS TO THE CLAIMS

(IN FORMAT COMPLIANT WITH THE REVISED 37 CFR 1.121)

Please cancel claims 5 and 18 without prejudice.

1. (CURRENTLY AMENDED) An apparatus comprising:

a voltage generator circuit configured in response to a feedback of an output voltage signal to (i) generate a reference output voltage in response to a plurality of bandgap controlled reference voltages and (ii) switch between said plurality of bandgap controlled reference voltages; and

a comparator circuit configured to generate ~~an~~ said output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises hysteresis accurately controlled ~~hysteresis~~ externally to said comparator circuit.

2. (CANCELED)

3. (CANCELED)

4. (CANCELED)

5. (CANCELED)

6. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said voltage generator circuit is further configured to provide substantial immunity against voltage, process and temperature variations.

7. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said voltage generator circuit comprises:

a bandgap reference circuit;

a voltage reference circuit configured to generate said plurality of bandgap controlled reference voltages; and

a reference switch circuit configured to switch between said plurality of bandgap controlled reference voltages to generate said output voltage.

8. (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said bandgap reference circuit comprises:

a process/compensation circuit;

a reference circuit; and

a summation circuit configured to control said voltage reference circuit in response to signals from said process compensation circuit and said reference circuit.

9. (CURRENTLY AMENDED) The apparatus according to claim 7, wherein said voltage reference circuit comprises:

a plurality of current sources configured to generate said plurality of bandgap controlled reference voltages; and

a plurality of resistors each coupled to at least one of said plurality of current sources.

10. (CURRENTLY AMENDED) The apparatus according to claim 7, wherein said reference switch circuit comprises:

a plurality of switches each (i) configured to receive at least one of said plurality of bandgap controlled reference voltages and (ii) coupled to said reference output voltage.

11. (ORIGINAL) The apparatus according to claim 10, wherein said plurality of switches are configured in response to said output voltage.

12. (CURRENTLY AMENDED) The apparatus according to claim 22~~1~~, wherein said plurality of reference voltages comprise bandgap controlled voltages.

13. (CURRENTLY AMENDED) An apparatus comprising:

means for using a voltage generator circuit for selecting a reference output voltage from a plurality of bandgap controlled reference voltages in response to a feedback of an output voltage signal; and

means for using a comparator circuit for generating ~~an~~ said output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises hysteresis accurately controlled ~~hysteresis~~ externally to said comparator circuit.

14. (CURRENTLY AMENDED) A method for providing accurate and controlled hysteresis comprising the steps of:

(A) using a voltage generator circuit for selecting a reference output voltage from a plurality of bandgap controlled reference voltages in response to a feedback of an output signal; and

(B) using a comparator circuit for generating ~~an~~ said output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises hysteresis accurately controlled ~~hysteresis~~ externally to said comparator circuit.

15. (CURRENTLY AMENDED) The method according to claim 14, wherein step (A) further comprises:

switching between said plurality of bandgap controlled reference voltages.

16. (CURRENTLY AMENDED) The method according to claim 14, wherein step (A) further comprises:

controlling a voltage level of said plurality of bandgap controlled reference voltages.

17. (CANCELED)

18. (CANCELED)

19. (ORIGINAL) The method according to claim 14, wherein step (B) is further responsive to voltage and temperature variations.

20. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises the sub-steps of:

(A-1) summing a positive temperature coefficient and a negative temperature coefficient; and

(A-2) controlling a voltage level of said plurality of reference voltages.

21. (CANCELED)

22. (PREVIOUSLY PRESENTED) An apparatus comprising:

a first circuit configured to generate a reference output voltage in response to a plurality of reference voltages; and

a second circuit configured to generate an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein (i) said output voltage comprises accurately controlled hysteresis and (ii) said first circuit includes a summation circuit configured to control a voltage reference circuit in response to signals from a process compensation circuit and a reference circuit.